

Claims

1. A seal for a gas supply system of metal, in particular for sealing an airbag conduit, wherein, during operation, the gas supply system (4) has a gas-conducting cross-section and a wall (12) of metal, characterized in that in the area which seals the cross-section of the gas supply system (4), a layer (14) of a plastically deformable material is at least partially inserted and that said area with the plastically deformable material present therein is sealed in a gas-tight manner.
2. The seal of claim 1, characterized in that the area of the seal and the plastically deformable material present therein are mechanically interlaced one with the other.
3. The seal of claim 1, characterized in that metal, metal-organic compounds, metallic or metal-organic alloys, natural or synthetic polymers, in particular adhesives, natural or synthetic fibre materials, or a material consisting of a combination of at least two of the previously mentioned materials is inserted into the seal as said plastically deformable material.
4. The seal of claim 1, characterized in that said layer (14) of plastically deformable material is arranged within said wall (12) of metal.
5. The seal of claim 1, characterized in that said layer (14) of plastically deformable material fills the whole of the cross-section enclosed by said wall (12) of metal.
6. The seal of claim 1, characterized in that said layer (14) of plastically deformable material is of a meltable alloy.
7. The seal of claim 1, characterized in that said layer (14) of plastically deformable material becomes plastically deformable at a temperature not exceeding the melting-point of the metal of the gas supply system.

8. The seal of claim 3, characterized in that said layer (14) of plastically deformable material is of metal, in particular of a copper alloy or a copper-organic alloy.
9. The seal of claim 3, characterized in that said layer (14) of plastically deformable material is of a natural or synthetic plastic which, after insertion and during or directly with gas-tight bonding of the plastically deformable material with the metal of the gas supply system, expands towards the wall of the gas supply system.
10. The seal of claim 3, characterized in that said layer (14) of plastically deformable material is a natural or a synthetic adhesive forming an adhesive bond with the wall during or after the gas-tight bonding of the adhesive with the wall of the gas supply system.
11. The seal of claim 3, characterized in that said plastically deformable material which is ... into the wall of ...
12. The seal of claim 1, characterized in that said layer (14) of plastically deformable material has a thickness of about 0.05 to 5 mm, preferably of 0.2 to 2 mm.
13. A method of manufacturing a seal for a gas supply system of metal, in particular for sealing an airbag conduit, comprising the steps of:
 - inserting a layer (14) of a plastically deformable material in the area (8) to be sealed of the gas supply system (4) of metal,
 - mechanically deforming the wall of the gas supply system and if necessary of said layer (14) of said plastically deformable material until the wall of the gas supply system and said layer (14) of metal lie flat against each other,
 - gas-tight sealing of said seal (8) either by a mechanical interlacing of said wall with said ductile material or by at least partially heating the area of the gas supply system (4) into which said layer (14) of said plastically deformable material has been inserted.

14. The method of claim 8, characterized in that said layer (14) of metal is heated until the metal is plastically deformable and a gas-tight bond between the metal of the gas supply system and said layer (14) of metal has been formed.
15. The method of claim 13, characterized in that during the at least partial heating of the area into which said layer (14) of metal is inserted, a mechanical pressure is exerted in this area.
16. The method of claim 13, characterized in that said layer (14) of metal is heated by induction or resistance techniques.
17. The method of claim 13, characterized in that said layer (14) of metal is of a solder material.
18. The method of claim 17, characterized in that said solder material is copper-based.
19. The method of claim 13, characterized in that natural or synthetic polymers, in particular an adhesive, natural or synthetic fibre materials, in particular paper, are used as said plastically deformable material.
20. The method of claim 13, characterized in that said layer of a plastically deformable material is a strip-shaped layer (14).
21. The use of solder alloys for making a seal of a gas supply system of metal according to claim 1 or for carrying out a method according to claim 13.